

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF OHIO  
WESTERN DIVISION

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BARBARA FISHER,

Plaintiff,

and

UNITED STATES OF AMERICA,

Plaintiff-Intervenor,

v.

PERMA-FIX OF DAYTON, INC.

Defendant.

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Civil Action No. 3:04 CV 00418  
Magistrate Judge Michael R. Merz

**CONSENT DECREE**

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WHEREAS on December 2, 2004, Plaintiff Barbara Fisher filed a Complaint in this action, alleging that Defendant Perma-Fix of Dayton, Inc. facility emitted odors, fumes, noxious materials, and other pollutants, which caused Plaintiff Fisher and others in her community to suffer adverse health effects, damage to property, and other injuries, and thus violated 1) Ohio Administrative Code 3745-3102 and 40 C.F.R. Part 52, 2) Ohio Administrative Code 3745-77, 42 U.S.C. §§ 7661a and 7661b, 3) 40 C.F.R. Part 63, Subpart DD, and 4) Ohio Administrative Code 3745-15-07 and 40 C.F.R. Part 52.

WHEREAS Plaintiff-Intervenor the United States of America, on behalf of the United States Environmental Protection Agency (“EPA”), filed an amended complaint in intervention in this action on August 24, 2006. The Amended Complaint in Intervention alleges that Defendant Perma-Fix of Dayton, Inc. (“PFD”), an off-site waste recovery operation, is a major source of hazardous air pollutants that failed to comply with specified requirements under the Act. Specifically, the Amended Complaint in Intervention alleges that 1) PFD failed to comply with the National Emission Standards for Hazardous Air Pollutants (“NESHAP”) regulations for Off-Site Waste Recovery Operations (“OSWRO”), in violation of 40 C.F.R. Part 63, Subpart DD; 2) PFD failed to comply with the general NESHAP requirements at 40 C.F.R. Part 63, Subpart A incorporated by the OSWRO regulations; 3) PFD failed to apply for and operate under a Title V permit in violation of 42 U.S.C. § 7661a(a), 40 CFR §§ 70.5(a) and 70.7(b), and Ohio Administrative Code 3745-77; 4) PFD failed to apply for and obtain Permits to Install prior to installing various new emission sources, in violation of the Ohio State Implementation Plan, Ohio Admin. Code 3745-31-02; and 5) PFD failed to respond to a July 26, 2002, information request issued by EPA, as modified on August 14, 2003, in violation of Section 114(a) of the Act, 42 U.S.C. § 7414(a).

WHEREAS PFD has filed an Answer to the Amended Complaint in which it has denied the material allegations of the United States and asserted affirmative defenses to the claims asserted therein.

WHEREAS PFD denies any liability to the United States arising out of the transactions or occurrences alleged in the Amended Complaint in Intervention and has agreed to the terms of this Consent Decree in order to avoid the cost of further litigation with the United States and the distraction of its personnel from the operation of PFD's business.

WHEREAS Plaintiff Fisher and PFD represent that they have entered into an additional settlement agreement that is not incorporated in this Consent Decree. Plaintiff Fisher and PFD represent that they have agreed, as part of that settlement, that Fisher and her counsel will organize a Neighborhood Environmental Committee that will, as one means of addressing the Committee's concerns, meet, from time to time, with representatives of the Facility to discuss and seek to resolve issues of concern to the neighborhood and/or Perma-Fix (including all successors, transferees, and/or other entities or persons bound by this Consent Decree) arising out of operations at the Facility.

WHEREAS Plaintiff-Intervenor the United States and Defendant Perma-Fix of Dayton, Inc. recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the United States and PFD in good faith and will avoid further litigation between the United States and PFD and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, with the consent of the United States and PFD, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action, pursuant to

28 U.S.C. §§ 1331, 1345, and 1355 and Section 113(b) of the Act, 42 U.S.C. § 7413(b), and over the United States and PFD. Venue lies in this District pursuant to Section 113(b) of the Act, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because the violations alleged in the Amended Complaint in Intervention are alleged to have occurred in, and PFD conducts business in, this judicial district. For purposes of this Decree, or any action to enforce this Decree, the United States and PFD consent to the Court's jurisdiction over this Decree and any such action and over the United States and PFD, and consent to venue in this judicial district.

2. Solely for purposes of this Consent Decree, PFD agrees that the Amended Complaint in Intervention states claims upon which relief may be granted pursuant to Section 113 of the Clean Air Act ("Act"), 42 U.S.C. § 7413.

3. Notice of the commencement of this action has been given to the State of Ohio, as required by Section 113(b) of the Act, 42 U.S.C. § 7413(b).

## II. APPLICABILITY

4. The obligations of this Consent Decree apply to and are binding upon the United States and upon PFD and any successors, assigns, or other entities or persons otherwise bound by law.

5. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve PFD of its obligation to ensure that the terms of the Decree are implemented, unless (1) the transferee agrees to undertake the obligations required by Sections V, VI, VII, VIII, and XI of this Decree and to be substituted for the PFD as a Party under the Decree and be thus bound by the terms thereof, and (2) the United States consents to relieve PFD of its obligations. The United States' decision to refuse to approve the

substitution of the transferee for PFD shall not be subject to judicial review. At least 30 days prior to such transfer, PFD shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 5 and the United States Department of Justice, in accordance with Section XIV of this Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with the notice requirements of this Paragraph constitutes a violation of this Decree.

6. Financial Assurance. In order to ensure the full and final completion of the obligations of this Decree, PFD agrees that the Corporation will not dissolve without prior approval from the United States or, in the alternative, will not dissolve until it establishes and maintains a Performance Guarantee for the benefit of EPA in the amount of the value of any capital expenditures then remaining to be performed, which must be satisfactory in form and substance to EPA.

7. PFD shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. For any contractor retained to perform work required under this Consent Decree, PFD shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

8. In any action to enforce this Consent Decree, PFD shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

### III. DEFINITIONS

9. Terms used in this Consent decree that are defined in the Act or in regulations

promulgated pursuant to or otherwise authorized by the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. “Bioplant” shall mean Bio-VDR (Tank T-703) and Bio-SBR (Tank T-705) and associated equipment used in the biological oxidation of organic wastewaters at the Facility.

b. “Complaint” shall mean the Amended Complaint in Intervention filed by Plaintiff-Intervenor the United States in this action;

c. “Consent Decree” or “Decree” shall mean this Decree and all appendices attached hereto (listed in Section XXIII);

d. “Day” shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day;

e. “Defendant” shall mean Perma-Fix of Dayton, Inc. or PFD;

f. “Effective Date” shall have the meaning set forth in Paragraph 101;

g. “EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;

h. “Facility” shall mean the facility currently owned by PFD located at 300 Cherokee Drive, Dayton, Ohio, 45427 and generally depicted on the map attached hereto as Appendix B;

i. “Paragraph” shall mean a portion of this Decree identified by an arabic



numeral;

j. “Parties” shall mean the United States and Defendant PFD;

k. “Section” shall mean a portion of this Decree identified by a roman

numeral;

l. “United States” shall mean the United States of America, acting on behalf of EPA.

#### IV. CIVIL PENALTY

10. Within 30 days after the Effective Date of this Consent Decree, PFD shall pay the sum of \$360,000 to the United States as a civil penalty. PFD shall pay the civil penalty due by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to PFD, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Southern District of Ohio, 303 Marconi Blvd., Columbus Ohio 43215, (614) 469-5715. At the time of payment, PFD shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in Fisher, et al., v. Perma-Fix of Dayton, 3:04CV418 (S.D. Ohio), and shall reference the civil action number and DOJ case number 90-5-2-1-08318, to the United States in accordance with Section XIV of this Decree (Notices); by email to [acctsreceivable.CINWD@epa.gov](mailto:acctsreceivable.CINWD@epa.gov); and to:

EPA Cincinnati Finance Office  
26 Martin Luther King Drive  
Cincinnati, Ohio 45268.

## V. COMPLIANCE REQUIREMENTS

### **General Requirements**

11. PFD shall achieve and maintain compliance with the OSWRO regulations, 40 C.F.R. Part 63, Subpart DD, the applicable provisions of the General NESHAP regulations, 40 C.F.R. Part 63, Subpart A, as identified in Table 2 of Subpart DD, and Title V of the Clean Air Act, 42 U.S.C. § 7661 *et seq.*, consistent with the schedules set forth in this Decree and the applicable regulations.

12. Within 30 days of the Effective Date of this Decree, PFD shall install a permanent monitor that displays the pressure in the closed-vent system according to the requirements in 40 CFR § 63.693(c)(1)(ii). This monitor shall be placed such that if it indicates a vacuum is present in the closed vent system at that point, there is a vacuum in the entire closed vent system. PFD shall observe the monitor at least once per day on days of operation and shall record each observation. PFD shall also record each day that there was no vacuum present in the closed vent system on days of operation. In the event there is no negative pressure in the closed vent system, PFD shall take all necessary action to remedy the problem as soon as possible including, but not limited to, taking applicable actions prescribed in its Startup, Shutdown, and Malfunction plan. Records associated with these requirements shall be kept on site and available for inspection for at least 3 years.

13. Within 60 days of the Effective Date of this Decree, PFD shall install a Continuous Monitoring System to monitor the Regenerative Thermal Oxidizer (“RTO”) combustion chamber temperature, recovery bed temperature, and RTO stack exhaust temperature. Monitoring performed by this system must conform to 40 C.F.R. § 63.695(e). Data will be subject to record-

keeping and reporting requirements of 40 C.F.R. Subparts DD and A at 40 C.F.R. §§ 63.696, 63.697.

14. Within 180 days after the Effective Date of this Decree, PFD shall comply with the OSWRO and General NESHAP provisions with respect to all units listed in Appendix A of this Decree and shall implement the respective controls identified for each unit in Appendix A. All tanks identified in Appendix A as requiring Level 2 controls shall comply with 40 C.F.R. § 63.685(d).

15. Within 90 days after the Effective Date of this Decree, PFD shall perform an engineering evaluation of airflow through the closed-vent system to the RTO to ensure the closed-vent system meets good engineering practices. PFD shall submit this evaluation to EPA and the Regional Air Pollution Control Agency (“RAPCA”) within 120 days of the Effective Date of this Decree; the evaluation shall include a schedule for implementing its recommendations. In the event of any disagreement on the methods PFD uses or the conclusions the report reaches, the United States and PFD shall resolve the dispute pursuant to Paragraphs 76-84 for dispute resolution. PFD shall implement the recommendations of the engineering evaluation in accordance with the schedule and shall amend any PTI application already submitted to request additional control measures, if necessary. Irrespective of the engineering evaluation, the RTO shall meet the design and operation standards for closed-vent systems and their control devices as specified in 40 C.F.R. §§ 63.693 and 63.695.

16. For purposes of this Decree, a closed vent system is either (i) a system that is designed to operate with no detectable organic emissions using the procedure specified in 40 C.F.R. § 93.694(k), or (ii) a system that is designed to operate at a pressure below atmospheric pressure, where the system is equipped with at least one pressure gauge or other pressure

measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed -vent system when the control device is operating.

17. Within 180 days of the Effective Date of this Decree, PFD shall vent displaced vapors from fuel oil loading and hazardous waste drum bulking to a control device, using a closed vent system as described in Paragraph 16 above and a control device that achieves 95% destruction of either total organic compounds or total HAP listed in Table 1 of 40 C.F.R 63, Subpart DD. All truck loading not vented to a control device pursuant to this Paragraph shall utilize submerged fill.

18. Within 180 days after the Effective Date of this Decree, PFD shall control the fume hood vents to atmosphere from the Building G laboratory with an organic vapor control device, which may be a carbon adsorption system. The system shall be designed and sized in order to remove compounds that are expected to be emitted by the laboratory, and shall be operated according to the manufacturer's specifications. If the organic vapor control device is a carbon adsorption system, PFD shall either replace or regenerate the carbon to remove captured volatile organic carbon when the unit fails to meet the manufacturer's performance specifications. PFD will monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. Records associated with these

requirements shall be kept on site and available for inspection for at least 3 years.

19. Within 120 days after the Effective Date of this Decree, PFD shall conduct a review of all operating equipment to ensure use of good engineering practices to reduce emissions, including identifying and addressing any equipment openings to the atmosphere, identifying and addressing any odorous operations, such as tank cleaning or routine spills, and identifying and addressing any process activities that may cause nuisance conditions. A report summarizing the review and proposed actions shall be submitted to EPA within 60 days after the review is completed, and PFD shall implement the plan within 180 days of submittal.

20. Within 180 days after the Effective Date of this Decree, PFD shall develop and submit to EPA and implement an environmental management plan to include the general categories set out in ISO 14000.

21. Within 120 days after the Effective Date of this Decree, PFD shall install and operate a data acquisition system for the pressure monitor located immediately upstream of the RTO fan. The data collection performed by this system shall conform with 40 C.F.R. § 63.695(e). Recordkeeping and reporting shall conform with 40 C.F.R. §§ 63.696, 63.697.

22. Within 120 days after the Effective Date of this Decree, PFD shall implement a community response plan including (1) public communication, (2) investigation procedures for responding to air pollution complaints, (3) quarterly newsletters, and (4) record keeping. PFD will share community response plan records with RAPCA at RAPCA's request. A report summarizing the community response plan shall be submitted to EPA within 60 days after the Effective Date of the Decree.

23. Within 180 days after the Effective Date of this Decree, PFD shall perform

an initial inspection and/or test of conservation vent setpoints on tanks subjected to Tank Level 1 Controls pursuant to Appendix A to this Decree, to confirm that the opening setpoint matches the tanks' design limits, in accordance with 40 C.F.R. §§ 63.902(c)(2), 63.905, and 63.906. Within 210 days after the Effective Date of this Decree, PFD shall submit to EPA the results of the initial inspection and/or test of conservation vent setpoints and shall state each tank's design rating, the setpoint at which the vent opens, and all supporting documentation.

24. PFD shall perform an annual visual inspection of all fixed roofs and conservation vents subject to Tank Level 1 Controls pursuant to Appendix A to this Decree. Inspections shall include visually checking equipment for defects that could result in air emissions, including, but not limited to, connections of the conservation vents to the tank roofs, and mechanical integrity of the pressure relief devices. PFD shall repair all detected defects as follows: PFD shall make first efforts at repair of the defect no later than 5 days after detection, and repair shall be completed as soon as possible but no later than 45 days after detection except that repair of a defect may be delayed beyond 45 days if PFD determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the regulated material normally managed in the tank. PFD shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of action that will ensure the equipment will be repaired or the tank emptied as soon as possible. Repairs of defects, dates of inspections, and corrective actions taken to repair defects shall be recorded by PFD. Inspection and corrective action records shall be maintained at the facility, including the date of inspection, the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect, for a period of 5 years. In the

event that repair of the defect is delayed in accordance with this provision, PFD shall also record the reason for the delay and the date that completion of repair of the defect is expected.

25. PFD shall perform quarterly visual inspections of the closed vent system using the procedure outlined in 40 CFR § 63.695(c).

26. PFD shall perform a visual inspection of the wastewater transfer lines for defects that could result in liquid leaks on the wastewater transfer lines at least once a day on days of operation. PFD shall repair all detected liquid leaks as follows: PFD shall make first efforts at repair of the liquid leak no later than 5 days after detection, and repair shall be completed as soon as possible but no later than 45 days after detection except that repair of a defect may be delayed beyond 45 days if PFD determines that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system capacity is available at the site to accept the regulated material normally managed in the transfer system. PFD shall repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repairs of liquid leaks, dates of inspections, and corrective actions taken to repair liquid leaks shall be recorded by PFD. Inspection and corrective action records shall be maintained at the facility, including the date of inspection, the location of the liquid leak, a description of the liquid leak, the date of detection, and corrective action taken to repair the liquid leak. In the event that repair of the defect is delayed in accordance with this provision, PFD shall also record the reason for the delay and the date that completion of repair of the defect is expected. Records of these inspections shall be kept on site, available for review, for a period of 5 years.

27. PFD shall not heat tanks S-6, S-7, S-13, S-14, S-21, S-22, S-23, S-24, S-28, and W-4 without installing, prior to heating, a closed-vent system as described in Paragraph 16

above which captures the emissions from the tank and vents those emissions to a control device that achieves 95% destruction of either total organic compounds or total HAP listed in Table 1 of 40 C.F.R Part 63, Subpart DD. To maintain an adequate volume of heated tank capacity during compliance activities, for a period not to exceed 180 days after the effective date of this Decree, Perma-Fix may take the following actions. Perma-Fix may temporarily heat any of the above tanks without connection to the closed vent system if that tank is being used as a direct replacement for a tank elsewhere in the facility that is out of service while it is being connected to the closed vent system. Perma-Fix may not heat more tanks than are necessary to provide replacement capacity for tanks taken out of service while being connected to the closed vent system. Any of the above tanks so heated must have the heating discontinued once the original tank is connected to the closed vent system and returned to service.

#### **Standard Operating Procedures and Plans**

28. Within 30 days of the Effective Date of this Decree, PFD shall implement and comply with the Containment Areas Standard Operating Procedure (“SOP”) attached hereto as Appendix C.

29. Within 30 days of the Effective Date of this Decree, PFD shall implement and comply with the Bioplant SOP attached hereto as Appendix D.

30. Within 30 days of the Effective Date of this Decree, PFD shall implement and comply with the Solidification Process SOP attached hereto as Appendix E.

31. Within 90 days of the Effective Date of this Decree, PFD shall submit to EPA, with a copy to RAPCA, startup, shutdown, and malfunction plans as provided for in 40 C.F.R. § 63.6(e)(3) for all emission units listed in Appendix A.



32. Within 90 days of the Effective Date of this decree, PFD shall develop and submit to EPA, with a copy to RAPCA, an SOP that explains how PFD will load material into tanker trucks to comply with Paragraphs 11 and 17 of this Decree.

33. Within 120 days after the Effective Date of this Decree, PFD shall develop and submit to EPA, with a copy to RAPCA, an SOP that explains how PFD will limit materials accepted and handled in order to assure it will not violate its permits, Subpart DD, or cause excessive odors off-site.

### **Permits**

34. Within 90 days after the Effective Date of this Decree, PFD shall apply to the Ohio Environmental Protection Agency through RAPCA for Permits to Install ("PTIs") for all units listed in Appendix A, and within 180 days after the Effective Date of this Decree, PFD shall submit a Clean Air Act Title V permit application pursuant to 40 C.F.R. Part 70 and the Ohio CAA Title V permit program at O.A.C. § 3745-77 to RAPCA, with copies of all applications sent to EPA. The PTI applications and the Title V Permit application shall provide all necessary information and meet all legal requirements in order for them to be complete, accurate, and approvable. PFD shall request as part of its PTI applications, which will be incorporated into its Title V permit application, the following enforceable provisions:

a. PFD shall request that the level of control identified for each unit in Appendix A be incorporated as federally enforceable requirements pursuant to O.A.C. § 3745-31, subject to RAPCA review and approval. Where Tank Level 2 controls are specified by Appendix A, PFD shall propose that the appropriate emission control is a closed vent system as described in Paragraph 16 above and a control device that achieves 95% destruction of either total organic

compounds or total HAP listed in Table 1 of 40 C.F.R 63, Subpart DD.

b. PFD shall request that the following additional controls apply to the Bioplant:

- i. For each day the bioplant is fed, the SBR and VDR must maintain DO levels above 1.0 ppm during the last two hours of the aeration stage of each batch. The SBR and VDR may fail to meet this limit, but not more than one batch every two calendar weeks, as long as the subsequent batch is extended so that the reactor is allowed to aerate until the DO level is above 1.0 ppm for at least two hours.
- ii. The wastewater feed to the SBR and VDR shall have a maximum food to microorganism (F/M) ratio of 0.30, measured as lb TOC influent / lb MLVSS. The wastewater feed TOC shall be sampled and measured from the bioplant feed tank (currently T-706B). The MLVSS shall be sampled and measured from the SBR and VDR. Compliance with the F/M ratio shall be determined on a weekly average basis. The F/M shall be calculated on a daily basis.
- iii. The bioplant blowers shall not supply more than a total of 4,500 acfm of air to the SBR and VDR, combined.

c. PFD shall request in their PTI applications that the requirements of Paragraphs 12, 17, 21, 24, 25, 26, and 27 be incorporated into the PTIs.

35. PFD shall submit copies of the Standard Operating Procedures for the Containment Areas, Bioplant, and Solidification Process described in Paragraphs 28, 29, and 30 as part of its PTI applications.

36. In the event there is a discrepancy between a PTI in existence as of the Effective Date of this Decree and any requirements of this Decree, PFD shall apply for a modification of the relevant PTI(s) to incorporate the level of control or operating practices specified in this Decree.

37. Approval of Deliverables. After review of any plan, report, or other item that is required to be submitted to the United States for approval pursuant to this Consent Decree, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

38. If the submission is approved pursuant to Paragraph 37(a), PFD shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 37(b) or (c), PFD shall, upon written direction of EPA, take all actions required by the approved plan, report, or other item that EPA determines are technically severable from any disapproved portions, subject to PFD's right to dispute only the specified conditions or the disapproved portions, under Section X of this Decree (Dispute Resolution).

39. If the submission is disapproved in whole or in part pursuant to Paragraph 37(c) or (d), PFD shall, within 30 days or such other time as the United States and PFD agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion

thereof, for approval, in accordance with the preceding Paragraphs or invoke Dispute Resolution pursuant to Section X of this Decree. If the resubmission is approved in whole or in part, PFD shall proceed in accordance with the preceding Paragraph.

40. Any stipulated penalties applicable to the original submission, as provided in Section VIII of this Decree, shall accrue during the 30-day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of PFD's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

41. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA may again require PFD to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself correct any deficiencies, subject to PFD's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties as provided in the preceding Paragraphs.

42. Permits. Where any compliance obligation under this Section requires PFD to obtain a federal, state, or local permit or approval, PFD shall submit timely and complete applications and take all other actions reasonably necessary to obtain all such permits or approvals. PFD may seek relief under the provisions of Section IX of this Consent Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation beyond PFD's reasonable control, so long as PFD has submitted timely and complete applications and has taken all other actions reasonably necessary to obtain all such permits or approvals.

VI. SUPPLEMENTAL ENVIRONMENTAL PROJECTS

43. PFD shall implement the following Supplemental Environmental Projects (“SEPs”) as described in Appendix F to this Consent Decree: (1) painting of unheated tanks; (2) addition of demister to the RTO; and (3) addition of puff chamber to RTO. The SEPs shall be completed within 180 days after the effective date of this Decree. In implementing the SEP, PFD shall spend not less than \$562,000 in eligible SEP costs. Eligible SEP costs include the costs of planning and implementing the SEPs.

44. PFD is responsible for the satisfactory completion of the SEPs in accordance with the requirements of this Decree. “Satisfactory completion” means that PFD shall complete the work in accordance with all work plans and specifications for the project and shall spend not less than the amount set forth in Paragraph 43. PFD may use contractors or consultants in planning and implementing the SEPs.

45. With regard to the SEPs, PFD certifies the truth and accuracy of each of the following:

a. that all cost information provided to EPA in connection with EPA’s approval of the SEPs is complete and accurate and represents a fair estimate of the costs necessary to implement the SEPs;

b. that, as of the date of executing this Decree, PFD is not required to perform or develop the SEPs by any federal, state, or local law or regulation and is not required to perform or develop the SEPs by agreement, grant, or as injunctive relief awarded in any other action in any forum;

c. that the SEPs are not projects that PFD was planning or intending to

construct, perform, or implement other than in settlement of the claims resolved in this Decree;

d. that PFD has not received and will not receive credit for the SEPs in any other enforcement action; and

e. that PFD will not receive any reimbursement for any portion of the SEPs from any other person.

46. SEP Completion Report

a. Within 30 days after the date set for completion of the SEPs, PFD shall submit a SEP Completion Report to the United States, in accordance with Section XIV of this Consent Decree (Notices). The SEP Completion Report shall contain the following information:

- i. a detailed description of the SEPs as implemented;
- ii. a description of any problems encountered in completing the SEPs and the solutions thereto;
- iii. an itemized list of all eligible SEP costs;
- iv. certification that the SEPs have been fully implemented pursuant to the provisions of this Decree; and
- v. a description of the environmental and public health benefits resulting from implementation of the SEPs (with a quantification of the benefits and pollutant reductions, if feasible).

47. EPA may, in its sole discretion, require information in addition to that described in the preceding Paragraph, in order to determine the adequacy of SEP completion or eligibility of SEP costs, and PFD shall provide such information.

48. After receiving the SEP Completion Report, the United States shall notify

PFD whether or not PFD has satisfactorily completed the SEPs. If the SEPs have not been satisfactorily completed in accordance with all applicable work plans and schedules, or if the amount expended on performance of the SEPs is less than the amount set forth in Paragraph 43, stipulated penalties may be assessed under Section VIII of this Consent Decree.

49. Disputes concerning the satisfactory performance of the SEPs and the amount of eligible SEP costs may be resolved under Section X of this Decree (Dispute Resolution). No other disputes arising under this Section shall be subject to Dispute Resolution.

50. Each submission required under this Section shall be signed by an official with knowledge of the SEP and shall bear the certification language set forth in Paragraph 56.

51. Any public statement, oral or written, in print, film, or other media, made by PFD making reference to the SEPs under this Decree shall include the following language: “This project was undertaken in connection with the settlement of an enforcement action, Fisher and the United States v. Perma-Fix of Dayton, taken on behalf of the U.S. Environmental Protection Agency under the Clean Air Act.”

52. For Federal Income Tax purposes, PFD agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing the SEPs.

## VII. REPORTING REQUIREMENTS

53. PFD shall submit the following reports:

a. Within 30 days after the end of each calendar-year quarter (*i.e.*, by April 30, July 30, October 30, and January 30) following the Effective Date of this Consent Decree, until termination of this Decree pursuant to Section XVIII, PFD shall submit a quarterly report for

the preceding quarter that shall include (i) status of compliance measures; (ii) completion of milestones; (iii) problems encountered or anticipated, together with implemented or proposed solutions; (iv) status of permit applications; (v) a discussion of PFD's progress in satisfying its obligations in connection with the three SEPs under Section VI of this Decree including, at a minimum, a narrative description of activities undertaken; status of any construction or compliance measures, and a summary of costs incurred since the previous report; and (vi) other matters as identified by the United States and PFD.

b. The quarterly report shall also include a description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize the effect and recurrence of such violation. If the cause of a violation cannot be fully explained at the time the report is due, PFD shall so state in the report. PFD shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 days of the day PFD becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves PFD of its obligation to provide the notice required by Section IX of this Consent Decree (Force Majeure).

54. Whenever any violation of this Consent Decree or any other event affecting PFD's performance under this Decree, or the performance of its Facility, may pose an immediate threat to the public health or welfare or the environment, PFD shall notify EPA orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after PFD first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.



55. All reports shall be submitted to the persons designated in Section XIV of this Consent Decree (Notices).

56. Each report submitted by PFD under this Section shall be signed by an official of the submitting party and include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

57. The reporting requirements of this Consent Decree do not relieve PFD of any reporting obligations required by the Clean Air Act or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

58. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

#### VIII. STIPULATED PENALTIES

59. PFD shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section IX (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of

this Decree and within the specified time schedules established by or approved under this Decree.

60. Late Payment of Civil Penalty If PFD fails to pay the civil penalty required to be paid under Section IV of this Decree (Civil Penalty) when due, PFD shall pay a stipulated penalty of \$5,000 per day for each day that the payment is late.

61. Compliance Milestones

a. The following stipulated penalties shall accrue per violation per day for each violation of the requirements identified in Subparagraph b:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$2,500	1st through 14th day
\$5,000	15th through 30th day
\$7,500	31st day and beyond

b. Paragraphs 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, and 36.

62. Reporting Requirements. The following stipulated penalties shall accrue per violation per day for each violation of the reporting requirements of Section VII of this Consent Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 14th day
\$2,000	15th through 30th day
\$5,000	31st day and beyond

63. SEP Compliance

a. If PFD fails to satisfactorily complete the SEPs by the deadline set forth in Paragraph 43, PFD shall pay stipulated penalties for each day for which it fails to satisfactorily complete each SEP, as follows:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$2,500	1st through 14th day
\$5,000	15th through 30th day
\$7,500	31st day and beyond

b. If PFD fails to implement any of the three SEPs, or halts or abandons work on any of the three SEPs, PFD shall pay stipulated penalties as set forth below:

i. For failing to implement, halting or abandoning work on the painting of unheated tanks SEP, PFD shall pay a stipulated penalty of \$65,000;

ii. For failing to implement, halting or abandoning work on the addition of demister to the RTO SEP, PFD shall pay a stipulated penalty of \$185,000;

iii. For failing to implement, halting or abandoning work on the addition of puff chamber to the RTO SEP, PFD shall pay a stipulated penalty of \$200,000.

The penalties under this subparagraph shall accrue as of the date specified for completing the SEP or the date performance ceases, whichever is earlier.

64. Except as provided in subparagraph 63.b. above, stipulated penalties under this Section shall begin to accrue on the first business day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

65. PFD shall pay any stipulated penalty within 30 days of receiving the United States' written demand.

66. The United States may in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree.

67. Stipulated penalties shall continue to accrue as provided in Paragraph 64, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to the Court, PFD shall pay accrued penalties determined to be owing, together with interest, to the United States within 30 days of the effective date of the agreement or the receipt of EPA's decision or order.

b. If the dispute is appealed to the Court and the United States prevails in whole or in part, PFD shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 days of receiving the Court's decision or order, except as provided in Subparagraph c, below. Nothing in this Subparagraph shall be construed to require payment of any penalties that the United States waived pursuant to Paragraph 66.

c. If any Party appeals the District Court's decision and the United States prevails in whole or in part, PFD shall pay all accrued penalties determined by the Court of Appeals to be owing, together with interest, within 15 days of receiving the final appellate court decision.

68. PFD shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 10, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

69. PFD shall not deduct stipulated penalties paid under this Section in calculating its federal income tax.

70. If PFD fails to pay stipulated penalties according to the terms of this Consent Decree, PFD shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for PFD's failure to pay any stipulated penalties.

71. Subject to the provisions of Section XII of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for PFD's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Act ("Act"), 42 U.S.C. § 7401 *et seq.*, and its implementing regulations, PFD shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

#### IX. FORCE MAJEURE

72. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of PFD, of any entity controlled by PFD, or of PFD's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite PFD's best efforts to fulfill the obligation. "Best efforts" includes anticipating any reasonably foreseeable potential force majeure event and addressing the effects of any such event (a) as it is occurring and (b) after it has occurred, to prevent or minimize any resulting delay to the greatest extent reasonably possible. "Force Majeure" does not include PFD's financial inability to

perform any obligation under this Consent Decree.

73. PFD shall provide notice orally or by electronic or facsimile transmission as soon as possible, but not later than 72 hours after the time PFD first knew of, or by the exercise of due diligence, should have known of, a claimed force majeure event. PFD shall also provide written notice, as provided in Section XIV of this Consent Decree (Notices), within seven days of the time PFD first knew of, or by the exercise of due diligence, should have known of, the event. The notice shall state the anticipated duration of any delay; its cause(s); PFD's past and proposed actions to prevent or minimize any delay; a schedule for carrying out those actions; and PFD's rationale for attributing any delay to a force majeure event. Failure to provide oral and written notice in a timely manner as required by this Paragraph shall preclude PFD from asserting any claim of force majeure, unless the delay was not reasonably avoidable based on all relevant circumstances.

74. If the United States agrees that a force majeure event has occurred, the United States may agree to extend the time for PFD to perform the affected requirements for the time necessary to complete those obligations. An extension of time to perform the obligations affected by a force majeure event shall not, by itself, extend the time to perform any other obligation not affected by a force majeure event.

75. If the United States does not agree that a force majeure event has occurred, or does not agree to the extension of time sought by PFD, the United States shall notify PFD of its position and the reason(s) therefor in writing. The United States' position shall be binding, unless PFD invokes Dispute Resolution under Section X of this Consent Decree. In any such dispute, PFD bears the burden of proving, by a preponderance of the evidence, that each claimed force majeure event is in fact a force majeure event within the meaning of this Section IX, that PFD gave the notice

required by Paragraph 73, that the force majeure event caused the delay PFD claims was attributable to that event, and that PFD exercised best efforts to prevent or minimize that delay.

#### X. DISPUTE RESOLUTION

76. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. PFD's failure to seek resolution of a dispute under this Section shall preclude PFD from raising any such issue as a defense to an action by the United States to enforce any obligation of PFD arising under this Decree. The procedures set forth in this Section do not apply to actions by the United States to enforce obligations of PFD that have not been disputed in accordance with this Section.

77. Except as otherwise expressly provided in this Consent Decree, the dispute resolution procedures set forth in this Section X shall be available to resolve any and all disputes arising under this Consent Decree, provided that the Party invoking the procedures has made a good faith attempt to informally resolve the matter with the other Party involved.

78. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the Parties to this Consent Decree to the other advising the other Party of a dispute pursuant to Section X. The notice shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Party receiving such notice will acknowledge receipt of the notice and the Parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days from the receipt of such notice.

79. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the Parties. Such period of informal negotiations shall not

extend beyond thirty (30) days from the date of the first meeting between representatives of the Parties, unless the Parties agree that this period should be shortened or extended.

80. In the event that the Parties are unable to reach agreement during such informal negotiations period, the United States shall provide PFD with a written summary of its position regarding the dispute. The position advanced by the United States will be considered binding unless, within forty-five (45) days of PFD's receipt of the written summary, PFD invokes formal dispute resolution by filing with the Court a petition which describes the nature of the dispute and PFD's position on the dispute. The United States shall respond to the petition within forty-five (45) days of filing.

81. In a formal dispute resolution proceeding under this Section, PFD shall bear the burden of demonstrating that its position complies with this Consent Decree and the Act. The Court shall decide the dispute based upon applicable principles of law. The United States reserves the right to argue that its position is reviewable only on the administrative record and must be upheld unless arbitrary and capricious or otherwise not in accordance with law. PFD reserves the right to argue that the burden of proof for demonstrating that its position complies with this Consent Decree and the Act is by a preponderance of the evidence.

82. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set forth in this Section X may be shortened upon motion of one of the Parties to the dispute or by agreement of the Parties to the dispute.

83. The United States and PFD do not intend that the invocation of this Section X will cause the Court to draw any inferences nor establish any presumptions adverse to either United States or PFD as a result of invocation of this Section.



84. In appropriate circumstances, as part of the resolution of any matter submitted to this Court under this Section X, the United States and PFD may agree to, or the Court may order, an extension or modification of the schedule for completion of work under the Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. PFD shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule. Invocation of dispute resolution with respect to any of PFD's obligations under this Consent Decree shall not, of itself, excuse or extend the time for performance of any other obligation of PFD under this Consent Decree.

#### XI. INFORMATION COLLECTION AND RETENTION

85. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
  - b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
  - c. obtain samples and, upon request, splits of any samples taken by PFD or its representatives, contractors, or consultants;
  - d. obtain documentary evidence, including photographs and similar data;
- and
- e. assess PFD's compliance with this Consent Decree.

86. Upon request, PFD shall provide EPA or its authorized representatives splits of any samples taken by PFD. Upon request, EPA shall provide PFD splits of any samples taken

by EPA.

87. PFD shall preserve and maintain, during the pendency of this Consent Decree, at least one legible copy of all reports required to be generated by PFD under this Consent Decree, together with documentation, in either electronic or hard copy form, of the research and data used to generate such reports or which otherwise demonstrate the performance of PFD's obligations under this Consent Decree. In addition, all memoranda, written or electronic communications, meeting minutes, and drafts prepared in connection with each report required to be generated by PFD under this Consent Decree, and relevant to the issue of the adequacy of PFD's performance of its obligations under this Consent Decree, shall be maintained until one (1) year following EPA's written approval of each final report, regardless of any corporate document retention policy to the contrary. Where a report does not require EPA's written approval such documents must be maintained until one (1) year after submission to EPA.

88. Notwithstanding the provisions of the above Paragraph, PFD may request in writing permission from EPA to not preserve, to not maintain, or to destroy certain specified categories of documents. PFD's obligations under the above Paragraph will remain unchanged, however, unless and until EPA in its discretion issues written approval of the request.

89. At the conclusion of the information-retention period provided in the preceding Paragraph, PFD shall notify the United States at least 90 days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, PFD shall deliver any such documents, records, or other information to EPA. PFD may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If

PFD asserts such a privilege, it shall provide the United States the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by PFD.

90. PFD may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2. As to any information that PFD seeks to protect as CBI, PFD shall follow the procedures set forth in 40 C.F.R. Part 2.

91. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal laws, regulations, or permits, nor does it limit or affect any duty or obligation of PFD to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

## XII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

92. This Consent Decree resolves only the civil claims of the United States for the violations alleged in the Amended Complaint in Intervention filed in this action, the claims for violations in EPA’s Notice of Violation EPA-5-06-OH-5, the claims for violations in EPA’s Finding of Violation EPA-5-04-OH-05, and the claims for violations in EPA’s Administrative Order EPA-5-04-113(a)-OH-03, through the date of lodging of this Consent Decree. This Consent Decree does not limit or affect Plaintiff Fisher’s right or ability to pursue her Fourth Claim for Relief, her Ohio Air Nuisance Claim pursuant to Ohio Administrative Code 3745-15-07.

93. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 92. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal laws, regulations, or permit conditions, except as expressly specified in Paragraph 92.

94. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. PFD is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and PFD's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that PFD's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. §§ 7401 *et seq.*, or with any other provisions of federal, State, or local laws, regulations, or permits.

95. This Consent Decree does not limit or affect the rights of PFD or of the United States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against PFD, except as otherwise provided by law.

96. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

### XIII. COSTS

97. The United States and PFD shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any

stipulated penalties due but not paid by PFD.

#### XIV. NOTICES

98. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing sent by U.S. Mail, with a copy sent by facsimile, and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
Box 7611 Ben Franklin Station  
Washington, D.C. 20044-7611  
Re: DOJ No. 90-5-2-1-08318

and

Compliance Tracker  
U.S. Environmental Protection Agency  
Region 5  
77 West Jackson Blvd.  
Mail Code: AE-17J  
Chicago, IL 60604

To Perma-Fix

Mr. John Staton, or current Plant Manager  
Perma-Fix of Dayton, Inc.  
300 Cherokee Drive  
Dayton, OH 45427

Scott Ellis  
Business, Government & Legal Affairs Manager  
Perma-Fix Environmental Services, Inc.  
701 Scarboro Road, Suite 300  
Oak Ridge, TN 37830

99. Either the United States or PFD may, by written notice to the other Party, change its designated notice recipient or notice address provided above.

100. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the United

States and PFD in writing.

**XV. EFFECTIVE DATE**

101. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

**XVI. RETENTION OF JURISDICTION**

102. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections X and XVII, or effectuating or enforcing compliance with the terms of this Decree.

**XVII. MODIFICATION**

103. The terms of this Consent Decree, including any attached appendices and Sections 1 and 7 from the Standard Operating Procedures , may be modified only by a subsequent written agreement signed by the United States and PFD. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court. All sections of the Standard Operating Procedures other than Sections 1 and 7 may be modified without prior written agreement or approval of the United States.

104. Any disputes concerning modification of this Decree shall be resolved pursuant to Section X of this Decree (Dispute Resolution), provided, however, that, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

#### XVIII. TERMINATION

105. After PFD has completed the requirements of Section V (Compliance Requirements) and Section VI (Supplemental Environmental Projects) of this Decree and has thereafter maintained continuous satisfactory compliance with this Consent Decree for a period of three years and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, PFD may serve upon the United States a Request for Termination, stating that PFD has satisfied those requirements, together with all necessary supporting documentation.

106. Following receipt by the United States of PFD's Request for Termination, the United States and PFD shall confer informally concerning the Request and any disagreement that the United States and PFD may have as to whether PFD has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States agrees that the Decree may be terminated, the United States and PFD shall submit, for the Court's approval, a joint stipulation terminating the Decree.

107. If the United States does not agree that PFD has satisfied the requirements set forth in Paragraph 105 above, PFD may invoke Dispute Resolution under Section X of this Decree. However, PFD shall not seek Dispute Resolution of any dispute regarding termination until 60 days after service of its Request for Termination.

#### XIX. PUBLIC PARTICIPATION

108. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or

inadequate. PFD consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified PFD in writing that it no longer supports entry of the Decree.

## XX. SIGNATORIES/SERVICE

109. Each undersigned representative of PFD and the undersigned delegate of the Attorney General of the United States certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

110. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. The Parties agree to accept service of process by mail, with a copy by facsimile, with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons; service is deemed complete upon mailing.

## XXI. INTEGRATION

111. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the United States and PFD with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it



represents, nor shall it be used in construing the terms of this Decree.

XXII. FINAL JUDGMENT

112. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and PFD. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXIII. APPENDICES

113. The following appendices are attached to and part of this Consent Decree:

“Appendix A” is the list of emission sources and controls at the Facility.

“Appendix B” is the Facility map.

“Appendix C” is the Containment Areas SOP.

“Appendix D” is the Bioplant SOP.

“Appendix E” is the Solidification Process SOP.

“Appendix F” is the list of Supplemental Environmental Projects

Dated and entered this \_\_\_\_ day of \_\_\_\_\_, 2008.

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The Honorable Michael R. Merz  
UNITED STATES MAGISTRATE JUDGE, SOUTHERN DISTRICT OF OHIO

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of Fisher, et al., v. Perma-Fix of Dayton, Inc., No. 3:04 CV 418 (S.D. Ohio)

FOR DEFENDANT PERMA-FIX OF DAYTON, INC.

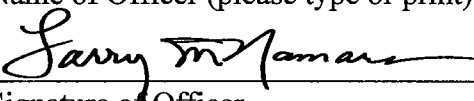
11/21/2007  
Date

Perma-Fix of Dayton, Inc.  
Name of Defendant

300 Cherokee Drive, Dayton, OH 45427  
Address

937-268-6501  
Telephone Number

By: Mr. Larry McNamara  
Name of Officer (please type or print)

  
Signature of Officer

Vice President  
Title

If different from above, the following is the name and address of PFD's agent for service and, if PFD has counsel, the name and address of PFD's counsel. Counsel may act as agent for service.

Agent for Service

Attorney

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

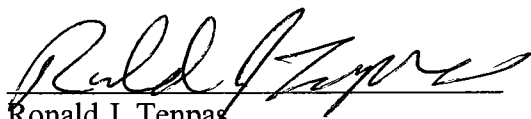
\_\_\_\_\_  
Telephone

PFD shall notify the United States Department of Justice of any change in the identity or address of PFD, its agent for service, or its counsel.

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of Fisher, et al., v. Perma-Fix of Dayton, Inc., No. 3:04 CV 418 (S.D. Ohio)

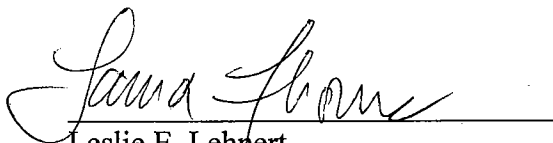
FOR THE UNITED STATES OF AMERICA

Date: 8 Dec 2007



Ronald J. Tenpas  
Acting Assistant Attorney General  
Environment and Natural Resources Division

Date: 12/12/07



Leslie E. Lehnert  
Laura A. Thoms  
Trial Attorneys  
Environment and Natural Resources Division  
U.S. Department of Justice  
Post Office Box 7611  
Washington, D.C. 20044-7611  
(202) 514-1761

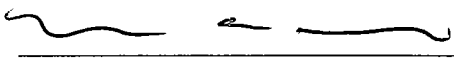
Gregory G. Lockhart  
United States Attorney  
Southern District of Ohio

Patrick Quinn  
Assistant United States Attorney  
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200 W. 2d Street  
Dayton, Ohio 45402  
(937)225-2910

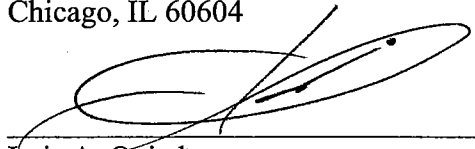
THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of Fisher, et al., v. Perma-Fix of Dayton, Inc., No. 3:04 CV 418 (S.D. Ohio)

FOR THE U.S. ENVIRONMENTAL  
PROTECTION AGENCY

Date: 11/29/07

  
\_\_\_\_\_  
Mary A. Gade  
Regional Administrator  
United States Environmental Protection  
Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

Date: 11-27-07

  
\_\_\_\_\_  
Luis A. Oviedo  
Assistant Regional Counsel  
United States Environmental Protection  
Agency, Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604

## APPENDIX A

**Appendix A**

Affected Sources	Plant Unit #	Unit Description	Control Type
<b>BUILDING B</b>			
OR-1	T-301	Wastewater 72,000-Gal. Storage Tank	Tanks, Level 2, 63.685(d)(3), (g)
T-002	T-002	OR-1 Oil Phase Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
T-001	T-001	Oil/Water Separator Oil Phase Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
OR-2	T-201	Wastewater 72,000-Gal. Storage Tank	Tanks, Level 2, 63.685(d)(3), (g)
Oil/Water Separator	T-402	Oil/Water Separator	Oil-water separator, 63.686(b)(2)
Surge Tank	T-206	UF Permeate Surge Tank 1,500-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
T-1	T-601	Wastewater Chemical Conditioning Tank 4,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
T-2	T-506	Wastewater Sludge Settling Tank 3,500-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
TW-1	T-605	Treated Process Waters Storage Tank 16,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
TW-1a		TW-1 Surge Tank 800-Gal	Tanks, Level 2, 63.685(d)(3), (g)
T-602	T-602	Chemical Conditioning Tank 2	Tanks, Level 2, 63.685(d)(3), (g)
T-603	T-603	Chemical Conditioning Tank 3	Tanks, Level 2, 63.685(d)(3), (g)
Lamella	T-604	Lamella	Tanks, Level 2, 63.685(d)(3), (g)
Building B Wastewater Transfer System		Transfer System (Water transfer among Bldg. B units)	Transfer System, 63.689(b)
Building B Wastewater Drain System		Individual Drain System (Water transfer from Bldg. B units)	Transfer System, 63.689(b)
<b>BUILDING B (CENTRIFUGE ROOM)</b>			
Tricanter		Tricanter	Oil-water separator, 63.686(b)(2)
Tricanter Oil Receiving Tank	T-006	Tricanter Oil Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
Tricanter Solids Receiving Drum	Drum-006	Tricanter Solids Discharge to 55-Gal Drum	Containers, Level 2, 63.688(b)(3)
Centrifuge 1		Centrifuge 1	Oil-water separator, 63.686(b)(2)
Centrifuge 3		Centrifuge 3	Oil-water separator, 63.686(b)(2)
Centrifuge Oil Phase Receiving Tank	T-003	Centrifuge Oil Phase Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
Centrifuge Water Phase Receiving Tank	T-004	Centrifuge Water Phase Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
Sweco-02		Sweco Vibratory Screen	Oil-water separator, 63.686(b)(2)
Sweco-02 Oil Receiving Tank	T-005	Sweco Oil Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
Sweco-02 Solids Receiving Drum	Drum-005	Sweco Oily Solids Discharge to 55-Gal Drum	Containers, Level 2, 63.688(b)(3)
Building B Oil Transfer System		Transfer System (Process oil & solids knockout transfer from centrifuge system)	Transfer System, 63.689(c)(2)
<b>CONDENSER ROOM</b>			
Evaporator Bottoms Tote	Tote-203	Evaporator Sludge Collection (Oil/Water) in 250-gal Tote	Containers, Level 2, 63.688(b)(3)
Condenser Transfer System	T-204	Heat Exchanger	Transfer System, 63.689
Condensate Light Ends Receiver Tote	Tote-205	Light Hydrocarbon 250-Gal. Portable Tote	Containers, Level 2, 63.688(b)(3)
<b>BUILDING E</b>			
Drum Bulking	Drum Bulking	Haz. Waste Containers, 0.1 to 0.46 m <sup>3</sup>	Containers, Level 1, 63.688(b)(1)
Drum Bulking	Drum Bulking	Haz. Waste Containers, >0.46 m <sup>3</sup>	Containers, Level 2, 63.688(b)(3)
Drum Bulking	Drum Bulking	Haz. Waste Tanker Trucks	Containers, Level 2, 63.688(b)(3)
Hazardous Waste Fuel Transfer System		Transfer System (Haz waste fuel from containers to tanker trucks)	Transfer System, 63.689
S-71	S-71	Oily Wastewater Storage Tank 5,000-Gal.	Tanks, Level 1, 63.685(c)

**Appendix A**

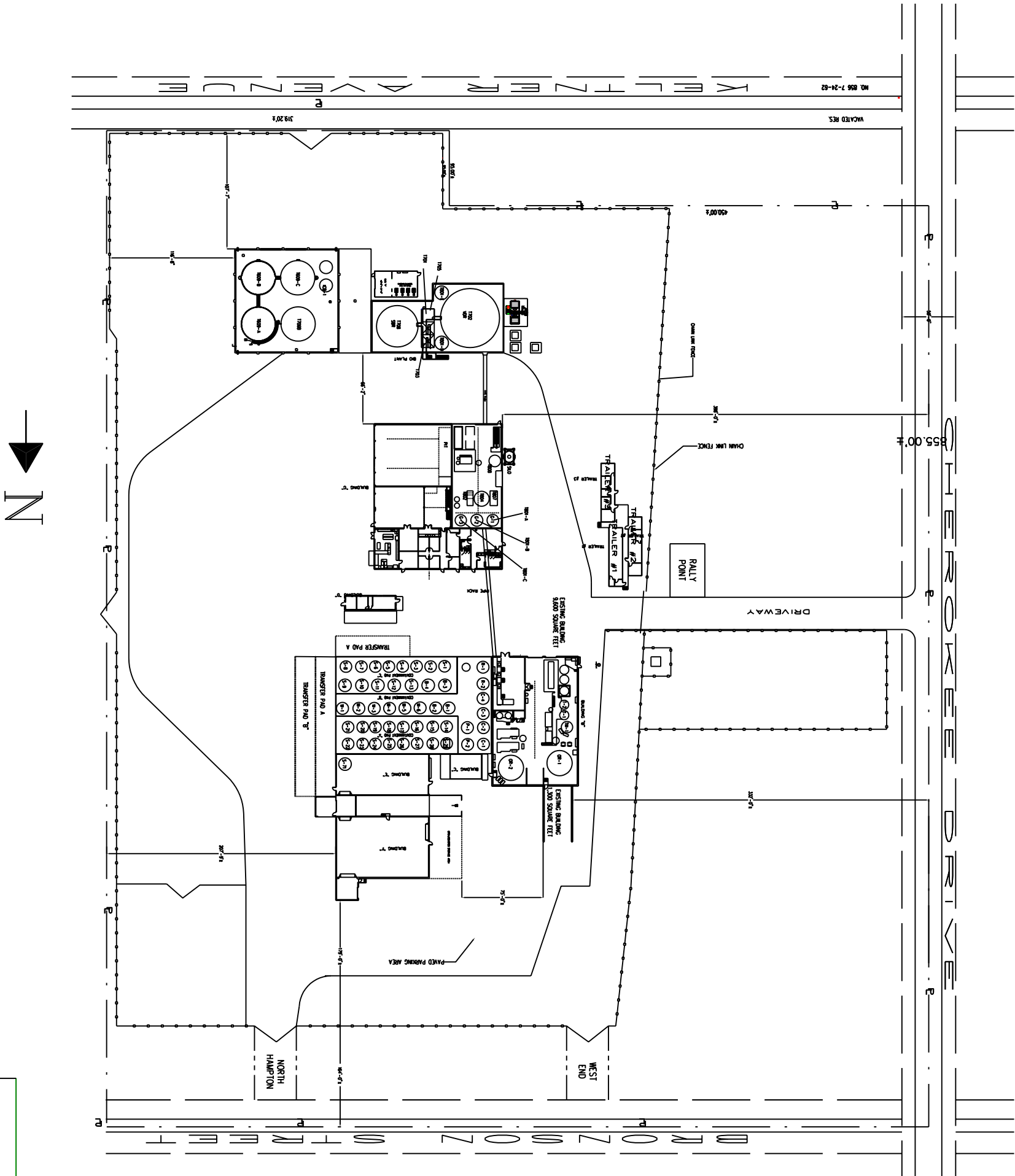
<b>Affected Sources</b>	<b>Plant Unit #</b>	<b>Unit Description</b>	<b>Control Type</b>
S-71 Transfer System		Hose/Hard Piping Individual Drain System	Transfer System, 63.689(b)
<b>BUILDING G</b>			
Rotary Vacuum Drum Filter		Rotary Vacuum Drum Filter	Organic-Water Separator, 63.686
Rotary Vacuum Sludge Vat		Rotary Vacuum Sludge Vat	Organic-Water Separator, 63.686
Bldg. G Wastewater Individual Drain System		Individual Drain System (Water transfer from G-1, G-2)	Transfer System, 63.689(b)
Bldg. G Wastewater Transfer System		Transfer System (Water transfer among Bldg. G units)	Transfer System, 63.689(b)
Bldg. G Solids/Sludge Transfer System		Transfer System (Solids/sludge transfer from G-3 to Solidification)	Transfer System, 63.689(b)
G-1	T-801A	G-Cone High Solids Process Vessel 14,080-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
G-2	T-801B	G-Cone High Solids Process Vessel 14,080-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
G-3	T-801C	G-Cone High Solids Process Vessel 14,080-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
T-808	T-808	Filter Press Feed Tank	Tanks, Level 2, 63.685(d)(3), (g)
Filter Press Permeate Tote	Tote-807	Filter Press Hazardous Permeate Receiving Tote, 250-Gal.	Containers, Level 2, 63.688(b)(3)
<b>BIOPLANT</b>			
Bio-SBR	T-705	High COD Wastewaters 125,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
Bio-VDR	T-703	High COD Wastewaters 425,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
T-706B	T-706B	Bioplant Equalization Feed Tank 187,000-Gal.	Tanks, Level 1, 63.685(c)
Bioplant Wastewater Transfer System		Individual Drain System (Water transfer among Bioplant units)	Transfer System, 63.689(b)
Bioplant Wastewater Individual Drain System		Individual Drain System (Water transfer from Bioplant to POTW)	Transfer System, 63.689(b)
<b>TANK FARM</b>			
Sweco-01		Sweco Vibratory Screen	Oil-water separator, 63.686(b)(2)
Sweco-01 Oil Receiving Tank	T-007	Sweco Oil Receiving Tank	Tanks, Level 2, 63.685(d)(3), (g)
Sweco-01 Solids Receiving Drum	Drum-007	Sweco Oily Solids Discharge to 55-Gal Drum	Containers, Level 2, 63.688(b)(3)
B-1	B-1	Process Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
B-2	B-2	Process Oils Storage Tank 17,500-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
B-3	B-3	Process Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
B-4	B-4	Process Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
C-2	C-2	Wastewater 15,000-Gal. Storage Tank	Tanks, Level 2, 63.685(d)(3), (g)
C-3	C-3	Raw Oil Solids 15,000-Gal. Storage Tank	Tanks, Level 2, 63.685(d)(3), (g)
C-4	C-4	Raw Oil 15,000-Gal. Storage Tank	Tanks, Level 2, 63.685(d)(3), (g)
P-1	P-1	Process Oils Storage Tank 18,500-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
P-2	P-2	Process Oils Storage Tank 18,500-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
R-1	R-1	Raw Oils Storage Tank 20,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
R-2	R-2	Raw Oils Storage Tank 20,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-1	S-1	Process Oils Storage Tank 16,700-Gal.	Tanks, Level 1, 63.685(c)
S-2	S-2	Process Oils Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)
S-3	S-3	Process Oils Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)
S-4	S-4	Cut Oils (Off-Road Diesel) Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)
S-6	S-6	Raw Oils Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)

**Appendix A**


<b>Affected Sources</b>	<b>Plant Unit #</b>	<b>Unit Description</b>	<b>Control Type</b>
S-7	S-7	Raw Oils Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)
S-9	S-9	<i>Storage Tank 30,000-Gal.</i>	Tanks, Level 2, 63.685(d)(3), (g)
S-10	S-10	Raw Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-11	S-11	Raw Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-12	S-12	Raw Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-13	S-13	Process Oils Storage Tank 30,000-Gal.	Tanks, Level 1, 63.685(c)
S-14	S-14	<i>Storage Tank 20,300-Gal.</i>	Tanks, Level 1, 63.685(c)
S-21	S-21	<i>Storage Tank 16,700-Gal.</i>	Tanks, Level 1, 63.685(c)
S-22	S-22	Crank Case Oils Storage Tank 17,500-Gal.	Tanks, Level 1, 63.685(c)
S-23	S-23	Crank Case Oils Storage Tank 18,350-Gal.	Tanks, Level 1, 63.685(c)
S-24	S-24	Crank Case Oils Storage Tank 15,000-Gal.	Tanks, Level 1, 63.685(c)
S-25	S-25	Crank Case Oils Storage Tank 15,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-26	S-26	Crank Case Oils Storage Tank 16,700-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-27	S-27	Crank Case Oils Storage Tank 23,400-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
S-28	S-28	Crank Case Oils Storage Tank 14,400-Gal.	Tanks, Level 1, 63.685(c)
W-1	W-1	Raw Oils Storage Tank 30,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
W-2	W-2	Raw Oils Storage Tank 18,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
W-4	W-4	Raw Oil Solids Storage Tank 19,000-Gal.	Tanks, Level 1, 63.685(c)
W-5	W-5	Wastewaters Storage Tank 23,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
W-6	W-6	Wastewaters Storage Tank 23,000-Gal.	Tanks, Level 2, 63.685(d)(3), (g)
T-609A	T-609A	Processed Oil Storage Tank 187,000-Gal.	Tanks, Level 1, 63.685(c)
T-609B	T-609B	Processed Oil Storage Tank 187,000-Gal.	Tanks, Level 1, 63.685(c)
T-609C	T-609C	Processed Oil Storage Tank 187,000-Gal.	Tanks, Level 1, 63.685(c)
Transfer Pad A Transfer System, Wastewater		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad A Transfer System, Raw and Process Oil		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad B Transfer System, Wastewater, Raw and Process Oil		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad B Transfer System, Hazardous Waste Fuel Bulking		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad B Transfer System, Non-hazardous Waste Bulking		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad C Transfer System, Wastewater, Raw and Process Oil		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad D Transfer System, Wastewater		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
Transfer Pad E Transfer System, Wastewater and Process Oil		Transfer System (Wastewater and oils transfer from loading rack to tanks; tanks to treatment processes)	Transfer System, 63.689(b)
<b>RTO</b>			
Regenerative Thermal Oxidizer		10,000-cfm Regenerative Thermal Oxidizer	63.693(a,b,c and f)



## APPENDIX B



REV.	DATE	DESCRIPTION	APPROV.
0		ISSUE FOR REVIEW AND COMPARISON	



300 S. WEST END AVE., DAYTON, OHIO 45427  
TEL. (937) 268-6501 FAX (937) 268-9059

**SITE PLAN**

**PERMA-FIX OF DAYTON**

SCALE: 1"=50'-0" (0)	QUOTE NO.	PROJECT NO. NA
DRAWN BY: T BENFIELD	DATE: 01-14-04	SHEET
CHECKED BY: J STATION	DATE: 01-14-04	1 OF 1

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO PERMA-FIX ENV. SERVICES AND IS NOT TO BE USED WITHOUT PERMISSION OF PERMA-FIX ENV. SERVICES

1\_14\_2004SITE

## APPENDIX C

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>CONTAINMENT AREAS CD</u>	05/07

## STANDARD OPERATING PROCEDURE

### TITLE: CONTAINMENT AREAS

#### 1.0 Purpose

To address potential liquid leaks of off-site materials from tanks or transfer systems located within containment areas.

#### 2.0 Scope

This procedures applies to the following PFD employees:

- Operators
- Operations Manager
- General Manager

#### 3.0 Policy

Each Perma-Fix of Dayton employee shall follow the operating procedure in order to institutionalize appropriate facility management systems. Personnel safety shall be a primary concern when personnel are performing duties covered by this procedure.

#### 4.0 Safety Warnings and Precautions

- Only properly trained personnel should inspect and/or maintain equipment in the containment areas.

#### 5.0 Personal Protective Equipment

The following personal protective equipment (PPE) must be worn at appropriate times when performing tasks described in this operating procedure.

Activity	What must be worn?	By whom?	When?
Sampling	Hard Hat	Everyone	In plant
Sampling	Appropriate Gloves	Everyone	In plant
Sampling	Safety Glasses	Everyone	In plant

#### 6.0 Responsibilities

The following are responsibilities assigned to facility personnel:

If you are the...	Then you are responsible for...
Operator,	Adherence to all sections of this Standard Operating

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>CONTAINMENT AREAS CD</u>	05/07

Operations Manager, or General Manager	Procedure
---	-----------

## 7.0 Procedure

All responsible individuals identified in Section 6.0 shall adhere to the following requirements:

Step	Action
1	PFD will visually inspect the containment areas for liquid leaks of off-site materials from tanks and transfer systems every operating day.
2	Any liquid leaks of off-site materials must be repaired as soon as practicable after their detection. (See 40 CFR §63.6(e)(1)(ii))
3	PFD shall repair all liquid leaks of off-site materials from tanks and transfer systems as follows (see 40 CFR §63.906(b) and 40 CFR §63.964(b)): <ul style="list-style-type: none"> <li>i. PFD shall make first efforts at repair of the leak no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 15 calendar days after detection.</li> <li>ii. PFD shall maintain a record of the leak repair in the facility operating record.</li> </ul>
4	PFD will maintain records of the daily inspections and leak repairs in the facility operating record. These records shall be retained at the facility for a minimum of three years.

## 8.0 Associated Procedures

The following procedures should be referred to and may be used in conjunction with this procedure.

Procedure No.	Description

## 9.0 Revision List

The following revisions to this procedure are reflected in this version:

Rev. No.	Date of Revision	Revised By:	Reason

## 10.0 Attachments

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>CONTAINMENT AREAS CD</u>	05/07

1. Annual Self-Audit Checklist

**11.0 Inquiries/Contact Information**

*For questions or comments please contact:*

Perma-Fix of Dayton General Manager (937) 268-6501  
300 S. West End Ave.  
Dayton, OH 45427

**12.0 Review and Approval**

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>CONTAINMENT AREAS CD</u>	05/07

**ATTACHMENT NO. 1****Annual Self-Audit Checklist**

Date of Self-Audit: \_\_\_\_\_

Auditor (name): \_\_\_\_\_

This checklist should be used by the General Manager or appointee to assure that this procedure is being implemented at the department level.

	<u>Question</u>	<u>Yes</u>	<u>No</u>
1.	Do [Work Practice] documents exist at the department level to implement this procedure effectively?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is personnel protective equipment (PPE) available to, and worn by, each person performing work activities under this procedure?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Has there been a clear assignment of responsibility for routine execution of this procedure's activities?	<input type="checkbox"/>	<input type="checkbox"/>
4.	For recorded deficiencies, have all corrective actions been implemented to correct the deficiencies?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Have all identified personnel been trained on this procedure?	<input type="checkbox"/>	<input type="checkbox"/>

Does this self-audit indicate that training and implementation are currently adequate? Discuss here and take those actions as necessary to correct the deficiencies: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Does this self-audit indicate a need to revise or update the department's work practice documents? Discuss here and take those actions as necessary to revise the document and to train personnel on the revision: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Actions Taken: \_\_\_\_\_

## APPENDIX D



STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>BIOPLANT CD</u>	05/07

## **STANDARD OPERATING PROCEDURE**

### **TITLE: BIOPLANT - DISSOLVED OXYGEN AND MIXED LIQUOR VOLATILE SUSPENDED SOLIDS (MLVSS)**

#### **1.0 Purpose**

To identify operational and procedural requirements for maintaining dissolved oxygen (DO) levels and correct food to microorganism (F/M) levels in the Bioplant Sequencing Batch Reactor (SBR) and Variable Depth Reactor (VDR).

- For each day the Bioplant is fed, the SBR and VDR must maintain DO levels above 1.0 ppm during the last two hours of the aeration stage of each batch. The SBR and VDR may fail to meet this limit, but not more than one batch every two calendar weeks, as long as the subsequent batch is extended so that the reactor is allowed to aerate until the DO level is above 1.0 ppm for at least two hours.
- The wastewater feed to the SBR and VDR shall have a maximum food to microorganism (F/M) ratio of 0.30, measured as lb TOC influent/lb MLVSS. The wastewater feed TOC shall be sampled and measured from the bioplant feed tank (currently T-706B). The MLVSS shall be sampled and measured from the SBR and VDR. Compliance with the F/M ratio shall be determined on a weekly average basis. The F/M shall be calculated on a daily basis.
- The bioplant blowers shall not supply more than 4,500 acfm of air to the SBR and VDR.

#### **2.0 Scope**

This procedures applies to the following PFD employees:

- Bioplant Operator
- Operations Manager
- General Manager
- Laboratory Personnel

#### **3.0 Policy**

Each Perma-Fix of Dayton employee shall follow the operating procedure in order to institutionalize appropriate facility management systems. Personnel safety shall be a primary concern when personnel are performing duties covered by this procedure.

#### **4.0 Safety Warnings and Precautions**

- Only properly trained personnel should operate the loading system.

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>BIOPLANT CD</u>	05/07

## 5.0 Personal Protective Equipment

The following personal protective equipment (PPE) must be worn at appropriate times when performing tasks described in this operating procedure.

Activity	What must be worn?	By whom?	When?
Sampling	Hard Hat	Everyone	In plant
Sampling	Latex Gloves	Everyone	In plant
Sampling	Safety Glasses	Everyone	In plant

## 6.0 Responsibilities

The following are responsibilities assigned to facility personnel:

If you are the...	Then you are responsible for...
Bioplant Operator, Operations Manager, or General Manager	Adherence to all sections of this Standard Operating Procedure
Lab personnel	Adherence to laboratory procedure sections of this Standard Operating Procedure

## 7.0 Procedure

The Bioplant operator shall perform the following actions each day the Bioplant is fed:

Step	Action
1	Calibrate a DO probe. Record calibration results in the laboratory record.
2	Initiate feeding cycle on the SBR and VDR. Record the start time of the feeding cycle. Record results in the laboratory record.
3	Record the time of feed cycle completion. Record results in the laboratory record. Perform the following Steps 5, 6, and 7 within four hours of feed cycle completion.
4	Using a DO probe, measure the DO levels of the SBR and the VDR 2 hours before feeding. Record results and the time of measurement in the laboratory record.
5	Collect a 1-liter sample from the SBR. Collect a 1-liter sample from the VDR.
6	Collect a 1-liter sample from the bioplant feed tank (currently T-706B).
7	Measure MLVSS twice per calendar on samples from Step 5 week using Standard Reference Method 2540, Subpart E in "Standard Methods for Examination of Water and Wastewater" of the American Water Works Association. Record results and the time of measurement in the laboratory record.

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>BIOPLANT CD</u>	05/07

- 8 Using the T-706B sample from Step 6 Measure the oxygen consumption rate (OCR) on each operating day the MLVSS is not measured. Record results and the time of measurement in the laboratory record.
- 9 Measure Total Organic Carbon (TOC) on the T-706B sample from Step 6. Record results and the time of measurement in the laboratory record each day the Bioplant is fed.
- 10 Calculate F/M ratio for the wastewater feed. Record results and the time of measurement in the laboratory record.
- 11 PFD will record laboratory analyses mentioned in this SOP in the facility operating record. These records shall be retained at the facility for a minimum of three years.

## 8.0 Associated Procedures

The following procedures should be referred to and may be used in conjunction with this procedure.

Procedure No.	Description

## 9.0 Revision List

The following revisions to this procedure are reflected in this version:

Rev. No.	Date of Revision	Revised By:	Reason

## 10.0 Attachments

1. Annual Self-Audit Checklist

## 11.0 Inquiries/Contact Information

*For questions or comments please contact:*

Perma-Fix of Dayton General Manager (937) 268-6501  
300 Cherokee Dr.  
Dayton, OH 45427

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>BIOPLANT CD</u>	05/07

## 12.0 Review and Approval

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>BIOPLANT CD</u>	05/07

**ATTACHMENT NO. 1****Annual Self-Audit Checklist**

Date of Self-Audit: \_\_\_\_\_

Auditor (name): \_\_\_\_\_

This checklist should be used by the General Manager or appointee to assure that this procedure is being implemented at the department level.

	<u>Question</u>	<u>Yes</u>	<u>No</u>
1.	Do [Work Practice] documents exist at the department level to implement this procedure effectively?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is personnel protective equipment (PPE) available to and worn by each person performing work activities under this procedure?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Has there been a clear assignment of responsibility for routine execution of this procedure's activities?	<input type="checkbox"/>	<input type="checkbox"/>
4.	For recorded deficiencies, have all corrective actions been implemented to correct the deficiencies?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Have all identified personnel been trained on this procedure?	<input type="checkbox"/>	<input type="checkbox"/>

Does this self-audit indicate that training and implementation are currently adequate? Discuss here and take those actions as necessary to correct the deficiencies: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Does this self-audit indicate a need to revise or update the department's work practice documents? Discuss here and take those actions as necessary to revise the document and to train personnel on the revision: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Actions Taken: \_\_\_\_\_

## APPENDIX E

STANDARD OPERATING PROCEDURE MANUAL	REV 0
REFERENCE PROCEDURE NO. <u>SOLIDIFICATION PROCESS CD</u>	05/07

## STANDARD OPERATING PROCEDURE

### TITLE: SOLIDIFICATION PROCESS

#### 1.0 Purpose

To set operating limitations on the solidification process conducted in Building G, pursuant to unit exemption under 40 CFR Part 63, Subpart DD.

#### 2.0 Scope

This procedures applies to the following PFD employees:

- Solidification Operator
- Operations Manager
- General Manager
- Laboratory Personnel

#### 3.0 Policy

Each Perma-Fix of Dayton employee shall follow the operating procedure in order to institutionalize appropriate facility management systems. Personnel safety shall be a primary concern when personnel are performing duties covered by this procedure.

#### 4.0 Safety Warnings and Precautions

- Only properly trained personnel should operate the loading system.

#### 5.0 Personal Protective Equipment

The following personal protective equipment (PPE) must be worn at appropriate times when performing tasks described in this operating procedure.

Activity	What must be worn?	By whom?	When?
Sampling	Hard Hat	Everyone	In plant
Sampling	Appropriate Gloves	Everyone	In plant
Sampling	Safety Glasses	Everyone	In plant

#### 6.0 Responsibilities

The following are responsibilities assigned to facility personnel:

If you are the...	Then you are responsible for...
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Solidification Operator, Operations Manager, or General Manager	Adherence to all sections of this Standard Operating Procedure
Lab personnel	Adherence to laboratory procedure sections of this Standard Operating Procedure

## 7.0 Procedure

All responsible individuals identified in Section 6.0 shall adhere to the following requirements:

Step	Action
1	Wastes received into G-PIT-001 (the Fixation/Solidification Pit) will be limited to off-site materials.
2	PFD will comply with Subpart DD at the G-PIT-001 by sampling the off-site material, and documenting by laboratory analysis that it contains organic concentrations less than 500 parts per million VOHAP, as allowed by Subpart DD. Laboratory test methods will include SW-846 Methods 8260 and 8270. Four samples will be obtained and analyzed as specified by 40 C.F.R. § 63.683(b)(1) and 40 C.F.R. § 63.694(b). Confirmatory annual samples will be obtained and analyzed as specified by 40 C.F.R. § 63.683(b).
3	PFD's generator waste profile will be changed to include mandatory and specific screening information about the VOHAP concentration and a characterization of odor, from the generator's process knowledge or analytical data. For all incoming off-site materials to be received into G-PIT-001, PFD will pre-screen each waste load for a VOHAP content of less than 500 parts per million by reviewing the generator's waste profile.
4	When off-site material arrives at the facility, PFD will evaluate information supplied by the generator regarding VOHAP content and odors prior to accepting the waste for solidification in G-PIT-001. PFD will not introduce off-site materials into G-PIT-001 whose waste profiles indicate VOHAP content greater than 500 parts per million or a strong odor. If the generator has indicated on the waste profile that VOHAPs are present above 100 parts per million, PFD will conduct a laboratory analysis of the off-site material for BTEX compounds. If the analysis indicates the off-site material contains total BTEX compounds greater than 300 parts per million, PFD will choose one of these three options: 1) the off-site material will be placed in one of PFD's Subpart DD waste treatment units, 2) the off-site material will be returned to the generator or sent off-site to another waste treatment facility, or 3) PFD will conduct a full VOHAP analysis of the off-site material using SW-846 Methods 8260 and 8270 to verify that the total VOHAP content is less than 500 parts per million.
5	PFD will record laboratory analyses in the facility operating record. These records shall be retained at the facility for a minimum of three years. PFD shall also retain the generator's waste profile for three years after the last date on which any of the waste associated with that profile has been accepted into the facility.



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## 8.0 Associated Procedures

The following procedures should be referred to and may be used in conjunction with this procedure.

Procedure No.	Description

## 9.0 Revision List

The following revisions to this procedure are reflected in this version:

Rev. No.	Date of Revision	Revised By:	Reason

## 10.0 Attachments

1. Annual Self-Audit Checklist

## 11.0 Inquiries/Contact Information

*For questions or comments please contact:*

Perma-Fix of Dayton General Manager (937) 268-6501  
 300 Cherokee Dr.  
 Dayton, OH 45427

## 12.0 Review and Approval

Prepared by: \_\_\_\_\_

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

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**ATTACHMENT NO. 1****Annual Self-Audit Checklist**

Date of Self-Audit: \_\_\_\_\_

Auditor (name): \_\_\_\_\_

This checklist should be used by the General Manager or appointee to assure that this procedure is being implemented at the department level.

	<u>Question</u>	<u>Yes</u>	<u>No</u>
1.	Do [Work Practice] documents exist at the department level to implement this procedure effectively?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is personnel protective equipment (PPE) available to, and worn by, each person performing work activities under this procedure?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Has there been a clear assignment of responsibility for routine execution of this procedure's activities?	<input type="checkbox"/>	<input type="checkbox"/>
4.	For recorded deficiencies, have all corrective actions been implemented to correct the deficiencies?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Have all identified personnel been trained on this procedure?	<input type="checkbox"/>	<input type="checkbox"/>

Does this self-audit indicate that training and implementation are currently adequate? Discuss here and take those actions as necessary to correct the deficiencies: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Does this self-audit indicate a need to revise or update the department's work practice documents? Discuss here and take those actions as necessary to revise the document and to train personnel on the revision: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Actions Taken: \_\_\_\_\_

## APPENDIX F

### **Supplemental Environmental Projects**

1. Tank Painting. PFD shall paint unheated tanks at the Facility with white paint, in order to reduce VOC and HAP emissions. This project shall include power washing, priming, and painting with full finish coats of Sherwin-Williams' direct-to-metal acrylic for the following tanks: S1, S2, S3, S4, S5, S6, S7, S8, S13, S14, S21, S22, S23, S24, S28, P1, P2, W4, T609A, T609B, and T609C. The bottom 4' or 5' of these tanks will remain black. In addition, with respect to tanks T609A, T609B, and T609C, PFD shall power wash and apply epoxy prime, epoxy intermediate, and urethane top coat.

2. Demister. PFD shall install and operate a demister to dry out the bottom plenums of the RTO and remove liquid water and condensed organics from the gas stream prior to entering the ID fan and the bottom plenums. This project shall include the installation of:

- One mist eliminator from Munters Co., per quote number G709-34889-A
- One fan and fan motor from Zimpher-kyser Co., per quote number 090907SZ, with added options of coatings and SS wheel
- Dampers and operators from Brock Air Products Co., per quote number KF205
- Ductwork as needed to tie in the mist eliminator and exhaust fan, up to the existing overhead duct. All ductwork shall be fabricated from type 304 SS, except the ductwork to connections rings, which shall be mild steel and painted. Rings shall be installed on the duct using a van stone bend which allows the duct to rotate during installation. PFD shall insulate all duct down stream of the demister with 2" fiberglass insulation, covered with an aluminum lagging.
- Process piping, including supply water, drains, traps, trap seal legs, gauges, valves and three demister solenoid valves. PFD shall insulate all items as needed.
- Conduit, wire, and heat trace as needed for the project
- Programmable Logic Controller ("PLC") changes required by the addition of the demister, associated with damper operation
- Addition of Allen Bradley processor with Ethernet for the RTO data collection system.

The demister will be operated at all normal operating times of the RTO, and all fume will go through the demister before entering the RTO.

3. Puff Chamber. PFD shall install and operate a puff chamber (also known as an entrapment chamber) to hold fume that would otherwise be emitted to the atmosphere during valve changeover between the 2 energy recovery beds of the Facility's RTO, and then route the captured fume to the inlet of the RTO for treatment. This project shall include installation of:

- One VOC entrapment chamber
- One VOC damper/stack base
- One 40' stack, with EPA test ports, to be mounted to the VOC damper
- One stack test port platform assembly
- Return piping to fan inlet
- Electrical engineering and Programmable Logic Controller ("PLC")

components to modify PLC program to control VOC damper and three demister solenoid valves, fresh air damper actuator and limit switches, isolation damper actuator and limit switches

- Air compressor, air piping, and electrical connections as required by addition of the puff chamber.

The puff chamber will be operated at all normal operating times of the RTO, and all fume during valve cycling of the RTO will go through the puff chamber.